

Serial No. 09/601,868

Art Unit: 1751

**REMARKS**

Applicants respectfully request the Examiner to enter the above amendments and reconsider the rejection in view of the following remarks and amendments.

**Status of Claims**

Claims 10 to 25 are pending. Claims 1 to 9 are being canceled without prejudice and Claims 10 to 25 are being added. Claims 1 to 9 have been rejected under 35 U.S.C. §103(a).

**Amendment**

The specification is being amended to insert a cross-reference to related applications in accordance with 37 CFR §1.78 and to claim priority to those applications listed therein.

The specification is also being amended to correct for errors in the naming of the chemical formulas 1 to 3, and 5 to 13 shown on pages 4 to 7 of the specification and the corresponding compounds in the examples on pages 9, 17, 19, 20, 22, and 24. Attached hereto is a marked up version of the changes made to the specification entitled "Version With Markings To Show Changes Made." No new matter is added to the specification by these corrections in chemical nomenclature.

Claims 10 to 25 are new and are supported by the specification for example at:

<b>Claim</b>	<b>Support in Specification</b>
10	page 1, lines 12 to 17, page 2, lines 1 to 17
11, 12, 17, 20, 21	page 3, lines 12 to 23
13, 18, 22	page 3, line 25 to page 7, line 7, page 22, lines 19 to 20, page 24, lines 5 to 6
14, 23	page 7, lines 8 to 11
15	page 21, Example 4 (line 22) to page 23, line 4, original claim 4
16	page 1, lines 10 to 17
19	page 1, lines 12 to 17, page 8, line 14 to page 9, line 2.
24, 25	page 8, lines 19 to 21

Serial No. 09/601,868  
Art Unit: 1751

No new matter is added by these new claims.

### **Response To Rejections Under Section 103(a)**

Claims 1 to 9 have been rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,708,151 to Moeckli ("Moeckli"). Since Claims 1 to 9 have been canceled, Applicants address this rejection with respect to new Claims 10 to 25.

### **Summary of Invention**

Applicants' invention relates to an oxidative fixing composition for permanently waving hair (Claim 10), a permanent waving kit (Claim 15) and a method of permanently waving hair (Claim 19) that also includes the use of at least one cationic dye. The cationic dye useful in the present invention has a quaternary nitrogen atom and an  $-X=N-$  bond, where X is a nitrogen atom or a  $-CH-$  group. The cationic dye is particularly effective in dyeing hair which is being or has been permanently waved.

### **Response to Rejection over Moeckli**

Applicants respectfully submit that new Claims 10 to 25 are neither disclosed nor suggested by Moeckli as Moeckli neither discloses nor suggests using its dyes in a permanent waving composition, kit or method as defined in Applicants' claims.

Instead, Moeckli is directed to certain cationic imidazole azo dyes and to their use for dyeing textile materials (see column 1, lines 1 to 30). Although Moeckli generally discloses that the dye of formula 8 may be used to dye materials such polyacrylonitrile, mechanical wood pulp and hair (column 6, lines 43 to 49), there is absolutely no disclosure or suggestion anywhere in Moeckli that these dyes would be useful in an *oxidative hair fixing composition for permanently waving hair, or a permanent hair waving kit or method* as defined in Applicants' claims.

In this regard, it is noted that one of ordinary skill in the art would have no motivation to use dyes for coloring hair in an oxidative hair fixing composition for permanently waving hair, or a

Serial No. 09/601,868

Art Unit: 1751

permanent hair waving kit or method because of the potential adverse interactions between the hair dyes and ingredients for permanently waving hair. For example, Applicants show in Test Example 2 on pages 11 and 12 of the specification that some typical dyes used in coloring hair such as Black 401, Purple 401, Orange 205, HC Blue 2, and HC Yellow 2 had very poor color fastness when used in a permanent waving composition (see e.g., page 12 of the specification, Table 3). In contrast, the cationic dyes useful in Applicants' invention had excellent color fastness. Thus, Moeckli neither discloses nor suggests Applicants' oxidative hair fixing composition for permanently waving hair, or a permanent hair waving kit or method as defined in Applicants' claims.

Accordingly, Applicants respectfully submit that Claims 10 to 25 would not have been obvious over Section 103(a) over Moeckli.

#### Miscellaneous

Applicants in reviewing their file realized that their PTO-1449 form submitted on March 16, 2001 was never initialed and returned to Applicants. Applicants are submitting herewith a copy of a) the Form PTO-1449, b) the information disclosure statement, and c) the PCT international search report and preliminary examination report that were all filed on March 16, 2001. Applicants request that the Form PTO-1449 form be initialed and returned. Should the Examiner need copies of any of the documents cited on the Form PTO-1449, Applicants respectfully request the Examiner to contact the undersigned.

Serial No. 09/601,868  
Art Unit: 1751

**CONCLUSION**

Applicants believe that the foregoing constitutes a complete and full response to the Office Action of record and requests withdrawal of all outstanding rejections. Early and favorable notification of allowance of all pending claims is earnestly requested.

Respectfully submitted,

Kimberly R. Hild  
Kimberly R. Hild  
(Reg. No. 39,224  
Attorney for Applicants  
(610) 278-4964

Date February 28, 2002

Henkel Corporation  
Law Department  
2500 Renaissance Boulevard, Suite 200  
Gulph Mills, PA 19406

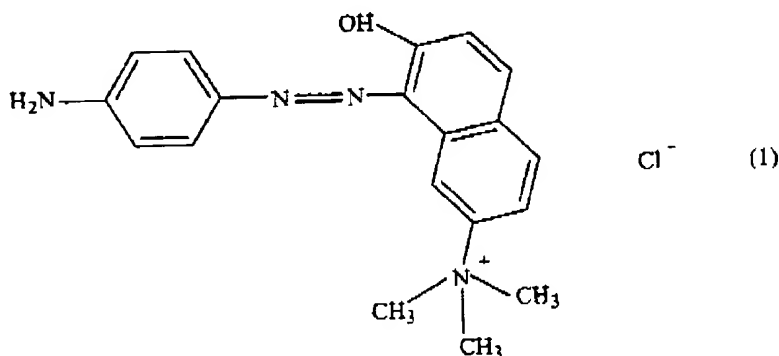
Docket N . H4898 PCT/US  
Serial No. 09/601,868

# VERSION WITH MARKINGS TO SHOW CHANGES MADE

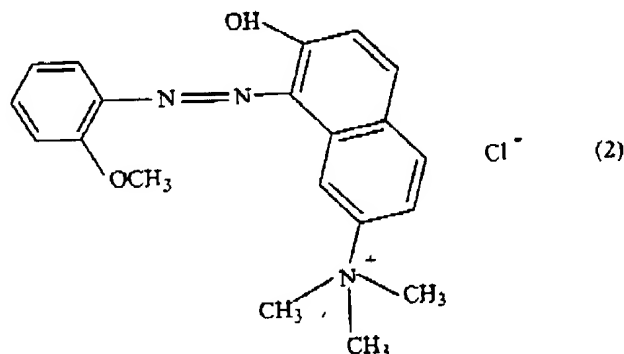
## IN THE SPECIFICATION

The paragraph beginning on page 3, line 25 and ending on page 7, line 7 has been amended as shown below:

-- Representative examples of the cationic dye are:  
4-aminophenylazo-2-hydroxy- 8 7-trimethylammoniumnaphthalene chloride represented by the formula (1):



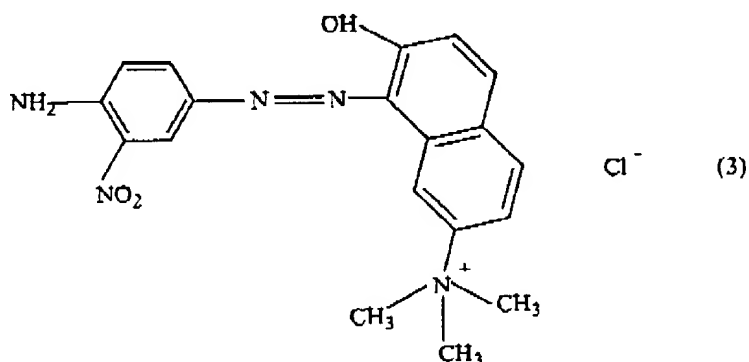
2-methoxyphenylazo-2-hydroxy- 8 7-trimethylammoniumnaphthalene chloride represented by the formula (2):



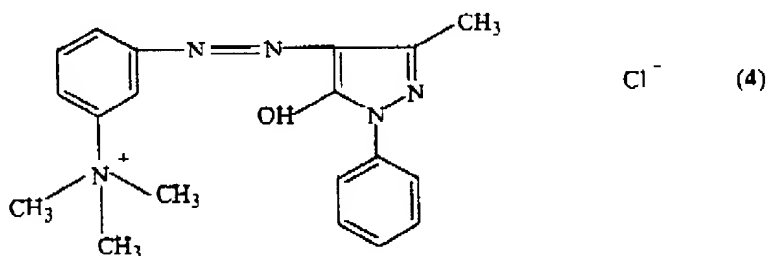
Docket N . H4898 PCT/US  
Serial N . 09/601,868

# VERSION WITH MARKINGS TO SHOW CHANGES MADE

4-amino-3-nitrophenylazo-2-hydroxy-8-(7-trimethylammonium)naphthalene chloride represented by the formula (3):



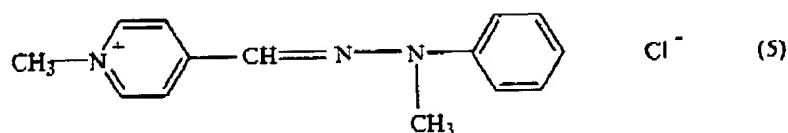
3-trimethylammoniumphenylazo-4N-phenyl-2-methyl-5-hydroxypyrazole chloride represented by the formula (4):



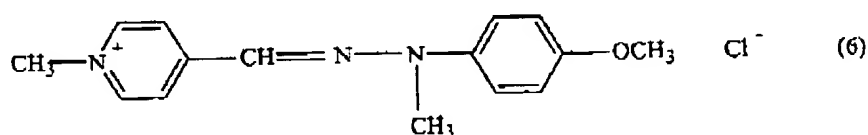
(1-methyl-1-phenyl)-2-(1-methine-4N-methylpyridinium)hydrazine chloride represented by the formula (5):

Docket No. H4898 PCT/US  
Serial No. 09/601,868

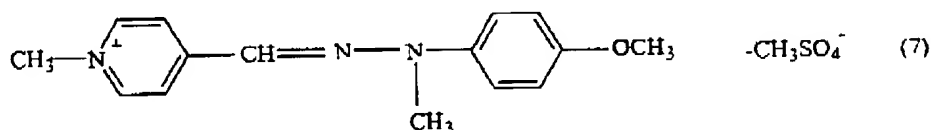
VERSION WITH MARKINGS TO SHOW CHANGES MADE



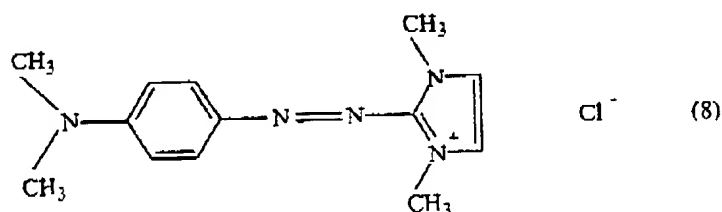
(1-methyl-1-(4-methoxyphenyl)-2-(1-methine-4N-methylpyridinium)methylpyridinium)hydrazine chloride represented by the formula (6):



(1-methyl-1-(4-methoxyphenyl)-2-(1-methine-4N-methylpyridinium)methylpyridinium)hydrazine methylsulfate represented by the formula (7):



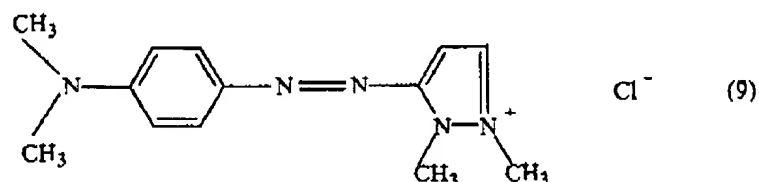
4-dimethylaminophenylazo-2N-methyl-5N-methylimidazolium methylimidazolium chloride represented by the formula (8):



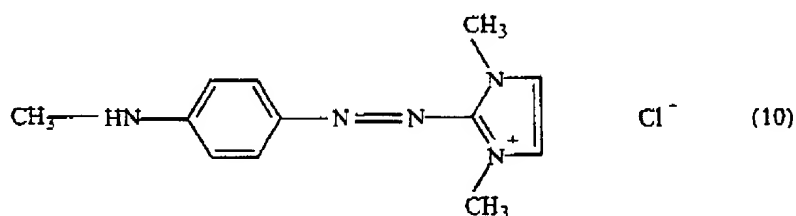
Docket N . H4898 PCT/US  
Serial No. 09/601,868

# VERSION WITH MARKINGS TO SHOW CHANGES MADE

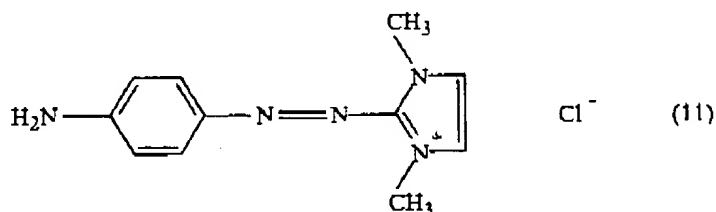
4-dimethylaminophenylazo-2N-methyl-3N- ~~methyylimidazolylum~~ methylypyrazolium chloride  
represented by the formula (9):



4-methylaminophenylazo-2N-methyl-5N- ~~methyylimidazolylum~~ methyylimidazolium chloride  
represented by the formula (10):



4-aminophenylazo-2N-methyl-5N- ~~methyylimidazolylum~~ methyylimidazolium chloride  
represented by the formula (11):

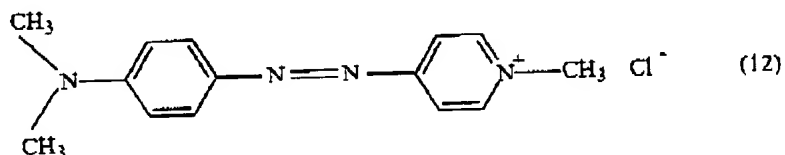


4-dimethylaminophenylazo-4N- ~~methylypyridinium~~ methylypyridinium chloride represented by  
the formula (12):

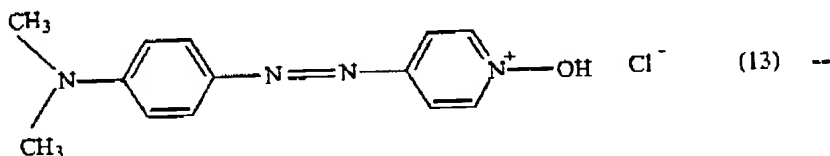


Docket No. H4898 PCT/US  
Serial No. 09/601,868

VERSION WITH MARKINGS TO SHOW CHANGES MADE



and 4-dimethylaminophenylazo-4N- ~~oxypyridinium~~ oxypyridinium chloride represented by the formula (13):



The paragraph beginning on page 9, line 17 and ending on page 9, line 24 has been amended as shown below:

-- As the acidic dye, BLACK 401, PURPLE 401 and ORANGE 205 were used. As the tar-series pigment, HC BLUE 2 and HC YELLOW 2 (manufactured by JAMES ROBINSON Inc.) were used. And, as the cationic dye, (A): (1-methyl-1-paramethoxyphenyl)-2-(1-methine-4N- ~~methylpyridinium~~ methylpyridinium)hydrazine chloride. (B): 4-dimethylaminophenylazo-2N-methyl-5N- ~~methylimidazolium~~ methylimidazolium chloride and (C): 4-aminophenylazo-2N-methyl-5N- ~~methylimidazolium~~ methylimidazolium chloride (manufactured by Ciba Specialty Chemicals, Inc.) were used. --

Docket No. H4898 PCT/US  
Serial No. 09/601,868

# VERSION WITH MARKINGS TO SHOW CHANGES MADE

The paragraph beginning on page 17, line 13 and ending on page 18, line 3 has been amended as shown below:

-- A second solution composition of the following formulation was prepared according to the conventional method.

Ingredient	%
(1-methyl-1-phenyl)-2-(1-methine-4N- <del>methylpyridinium</del> <u>methylpyridinium</u> ) hydrazine methylsulfate	0.2
Hydrogen peroxide (35%)	4.3
Cetanol	0.5
Reduced lanolin	0.35
Acetanilide	0.02
Sodium pyrophosphate	0.025
Phosphoric acid, purified water	Balance
(A pH was adjusted to 6.5 with phosphoric acid) --	

The paragraph beginning on page 19, line 3 and ending on page 19, line 17 has been amended as shown below:

Docket No. H4898 PCT/US  
Serial No. 09/601,868

# VERSION WITH MARKINGS TO SHOW CHANGES MADE

-- A second solution composition of the following formulation was prepared according to the conventional method.

Ingredient	%
4-dimethylaminophenylazo-2N-methyl-5N- <del>methylimidazolium</del> <u>methylimidazolium</u> chloride	0.2
Potassium bromate	10.2
Lauryldimethyl acetate betaine	1.0
Cetyltrimethylammonium chloride	0.6
Sodium benzoate	0.3
Salicylic acid	0.05
Trisodium phosphate	0.27
Phosphoric acid, purified water	Balance
(A pH was adjusted to 6.5 with phosphoric acid) --	

The paragraph beginning on page 20, line 15 and ending on page 21, line 1 has been amended as shown below:

-- A second solution composition of the following formulation was prepared according to the conventional method. Uricase was added just before the treatment with the second solution.

Ingredient	%
4-aminophenylazo-2N-methyl-5N- <del>methylimidazolium</del> <u>methylimidazolium</u> chloride	0.2
Uricase (20 units/mg)	1.0
Uric acid	1.0
Glycerol	3.0
Purified Water	Balance --

Docket No. H4898 PCT/US  
Serial N . 09/601,868

### VERSION WITH MARKINGS TO SHOW CHANGES MADE

The paragraph beginning on page 22, line 16 and ending on page 22, line 22 has been amended as shown below:

#### -- Dye solution

Ingredient	%
4-(4-aminophenylamino)phenylazo-2N-methyl-5N- <del>methylimidazolium</del> <u>methylimidazolium</u> chloride	0.4
Monoethanolamine, purified water	Balance
(A pH was adjusted to 8.0 with monoethanolamine) --	

The paragraph beginning on page 23, line 25 and ending on page 24, line 6 has been amended as shown below:

#### -- Dye Powder

Ingredient	%
(1-methyl-1-paramethoxyphenyl)-2-(1-methine-4N- <del>methylypyridinium</del> <u>methylpyridinium</u> ) hydrazine chloride	0.02
(to the oxidative fixing solution)	
3-amino-7-(dimethylamino)-2-methoxyphenoxazine-5-ium chloride	0.02
(to the oxidative fixing solution) --	

Docket No. H4898 PCT/US  
Serial No. 09/601,868

**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

The paragraph beginning on page 24, line 17 to page 25, line 1 has been amended as shown below:

-- A dye solution of the following formulation was prepared.

Ingredient	%
(1-methyl-1-paramethoxyphenyl)-2-(1-methine-4N- <del>methylpyridinium</del> <u>methylpyridinium</u> )hydrazine chloride	0.2
hydroxyethyl cellulose	2.5
Triethanolamine, purified water	Balance
(A pH was adjusted to 8.0 with triethanolamine) --	